

LISTING OF CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Previously Presented): A communication system comprising:
an information server capable of performing communication in first and second communication modes; and
a communication apparatus which is provided as an integrated unit and is capable of performing communication in the first and the second communication modes, the communication apparatus including:
communication circuitry capable of performing communication with the information server in the first and the second communication modes to receive information sent from the information server in response to an information acquisition request generated by the communication apparatus and communicated to the information server via the communication circuitry;
an output device for outputting the information received from the information server;
a connection information storage section; and
a communication mode switching control section for controlling the switching of communication mode with the information server from the first communication mode to the second communication mode by storing into the connection information storage section connection information based on a condition of communication connection of the communication apparatus and the information server in the first communication mode at a time of the switching, releasing the connection of the communication circuitry with the information server in the first communication mode in a state in which a connection of the communication apparatus and the information server in the second communication mode is not established, establishing a connection with the information server in the second communication mode in a state in which a connection of the communication apparatus and the information server in the first communication mode is not established, and restoring the condition of communication connection based on the stored connection information.

Claim 2 (Previously Presented): The communication system of claim 1, wherein the communication apparatus further includes a switching condition storage section for storing a determination reference value, and wherein the communication mode switching control section compares an amount of information to be acquired from the information server and the determination reference value, and determines whether or not to execute switching of communication mode based on a result of the comparison.

Claim 3 (Previously Presented): The communication system of claim 1, wherein the communication mode switching control section determines whether or not to execute the switching of communication mode based on a kind of information to be acquired from the information server.

Claim 4 (Previously Presented): The communication system of claim 1, wherein the communication apparatus further includes a switching condition storage section for storing a communication charge for communication connection time in each of the first and the second communication modes, and

wherein the communication mode switching control section measures a communication connection time necessary for acquiring the requested information in each of the first and the second communication modes, and determines whether or not to execute the switching of communication mode based on the measured communication connection times and the communication charges for the communication connection times in the first and the second communication modes, respectively.

Claim 5 (Previously Presented): The communication system of claim 1, wherein the communication apparatus further includes a switching condition storage section for storing a time, and

wherein the communication mode switching control section compares a current time and the time stored in the switching condition storage section, to determine whether or not to execute the switching of communication mode.

Claim 6 (Previously Presented): The communication system of claim 1, wherein the

communication mode switching control section determines whether or not to execute switching of communication mode based on an operator's operation.

Claim 7 (Original): The communication system of claim 1, wherein when a communication mode switching instruction is received from the information server, the communication mode switching control section switches the communication mode, based on the switching instruction.

Claim 8 (Previously Presented): The communication system of claim 7, wherein the communication apparatus transmits to the information server a signal representative of whether or not to transmit the communication mode switching instruction from the information server to the communication apparatus based on an operator's operation.

Claim 9 (Previously Presented): The communication system of claim 1, wherein when the communication mode switching instruction is received from the information server, the communication mode switching control section determines whether or not to follow the communication mode switching instruction from the information server based on an operator's operation.

Claim 10 (Previously Presented): A communication system comprising:
an information server capable of performing communication in first and second communication modes; and

a communication apparatus which is provided as an integrated unit and is capable of performing communication in the first and the second communication modes, the communication apparatus including:

communication circuitry capable of performing communication with the information server in the first and the second communication modes to receive information sent from the information server in response to an information acquisition request generated by the communication apparatus and communicated to the information server via the communication circuitry;

an output device for outputting the information received from the information server;

a connection information storage section;
a switching condition storage section for storing a reference value of an information transfer rate; and
a communication mode switching control section for, when the communication circuitry is acquiring information from the information server in the first communication mode, monitoring a rate of information transfer from the information server, comparing the monitored information transfer rate and the reference value, and in cases in which the monitored information transfer rate does not exceed the reference value, storing connection information in the connection information storage section based on a condition of communication connection of the communication apparatus and the information server at that time, disconnecting the communication in the first communication mode in a state in which a connection of the communication apparatus and the information server in the second communication mode is not established, establishing a connection with the information server in the second communication mode in a state in which a connection of the communication apparatus and the information server in the first communication mode is not established, and restoring the communication connection condition based on the stored connection information.

Claim 11 (Previously Presented): A communication system comprising:
an information server capable of performing communication in first and second communication modes; and
a communication apparatus which is provided as an integrated unit and is capable of performing communication in the first and the second communication modes,
the information server including:
communication circuitry capable of performing communication with the communication apparatus in the first and the second communication modes;
a switching condition storage section for storing a reference value of an information transfer rate; and
a communication mode switching control section for, when the communication circuitry is transferring information to the communication apparatus in the first communication mode, monitoring the information transfer rate, comparing the monitored information transfer rate and the reference value, and in cases where the monitored information transfer rate does not exceed

the reference value, causing the communication circuitry to transmit a communication mode switching instruction to the communication apparatus, and

the communication apparatus including:

communication circuitry capable of performing communication with the information server in the first and the second communication modes to receive information sent from the information server in response to an information acquisition request generated by the communication apparatus and communicated to the information server via the communication circuitry;

an output device for outputting the information received from the information server;

a connection information storage section; and

a communication mode switching control section for, when the communication circuitry of the communication apparatus receives the communication mode switching instruction, causing connection information to be stored in the connection information storage section based on a condition of communication connection of the communication apparatus and the information server at that time, disconnecting the communication in the first communication mode in a state in which a connection of the communication apparatus and the information server in the second communication mode is not established, establishing a connection with the information server in the second communication mode in a state in which a connection of the communication apparatus and the information server in the first communication mode is not established, and restoring the communication connection condition based on the stored connection information.

Claim 12 (Previously Presented): The communication system of claim 1, wherein after information acquisition in the second communication mode is completed, the communication mode switching control section automatically disconnects the communication in the second communication mode, and establishes a connection with the information server in the first communication mode.

Claim 13 (Previously Presented): The communication system of claim 1, wherein after information acquisition in the second communication mode is completed, the communication mode switching control section receives a communication mode switching

instruction from the information server, automatically disconnects the communication in the second communication mode based on the instruction from the information server, and again establishes a connection with the information server in the first communication mode.

Claim 14 (Previously Presented): The communication system of claim 1, wherein after a specified time has elapsed since information acquisition in the second communication mode is completed, the communication mode switching control section automatically disconnects the communication in the second communication mode, and again establishes a connection with the information server in the first communication mode.

Claim 15 (Previously Presented): A communication apparatus for communicating with an information server using different communication modes, the communication apparatus comprising:

- a communication section for establishing communications with the information server in the different communication modes to receive information sent from the information server in response to an information acquisition request generated by the communication apparatus and communicated to the information server via the communication section;

- an output device for outputting the information received from the information server;
- a storage section; and

- a communication mode switching control section for controlling the switching of communication modes with the information server by storing connection information into the storage section based on a communication connection condition of the communication apparatus and the information server in a current communication mode, releasing the communication connection with the information server in a state in which a connection of the communication apparatus and the information server in a communication mode other than the current communication mode is not established, and establishing a communication connection with the information server in another communication mode in a state in which a connection of the communication apparatus and the information server in any other communication mode is not established and restoring the communication connection condition based on the stored connection information,

wherein the communication section, the storage section, the output device and the communication mode switching control section are embodied in a portable terminal.

Claim 16 (Previously Presented): The communication apparatus of claim 15, wherein the connection information comprises a uniform resource locator (URL).

Claim 17 (Canceled).

Claim 18 (Previously Presented): The communication apparatus of claim 15, wherein the communication mode switching control section controls the switching based on an instruction signal from the information server.

Claim 19 (Previously Presented): The communication apparatus of claim 15, wherein the communication mode switching control section controls the switching based on a comparison between an amount of data to be acquired from the information server and a reference amount of data.

Claim 20 (Previously Presented): The communication apparatus of claim 15, wherein the communication mode switching control section controls the switching in accordance with a type of information to be acquired from the information server.

Claim 21 (Previously Presented): The communication apparatus of claim 15, wherein the communication mode switching control section controls the switching based at least in part on communication charges.

Claim 22 (Previously Presented): The communication apparatus of claim 15, wherein the communication mode switching control section controls the switching based on a comparison between a current time and a specified time.

Claim 23 (Previously Presented): The communication apparatus of claim 15, wherein the communication mode switching control section controls the switching based at least in part on an operator's instruction.